To Do list

for Android

Trevin Beattie

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1 The Basics

To Do was designed to be simple and intuitive, so you should be able to get started creating lists and exploring many of the application features without using this manual.

1.1 Device Compatibility

The application is designed for compatibility with Android 12 (Snow Cone) but also runs on Android 4.0 (Ice Cream Sandwich) through 14 (Upside-down Cake) which should cover 98.6% of Android devices on the market as of March 2025. (It has been tested on Ice Cream Sandwich, Marshmallow, Oreo, Quince Tart, and Upside-down Cake.) Support for newer Android devices is planned.

1.2 Permissions

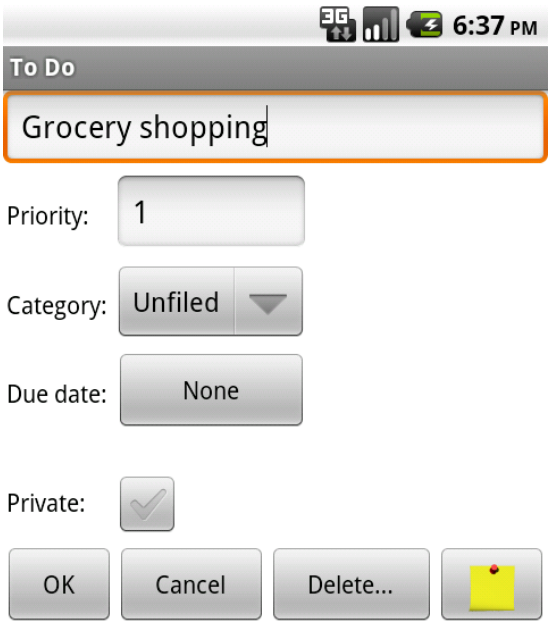
When installing the ToDo app or when using certain features, Android may ask you to grant permission for the app to access some system-level functions. The permissions the app requests include:

- Receive the system "boot completed" event. The app uses this to show notifications for any alarms which may have come due prior to your device starting up.
- Foreground service. This permission was added in Android 10 (Quince Tart). The app runs a service to handle alarms for To Do items that are due at a time that you set. As of Android 8 (Oreo), this service needs to run in the foreground in order to post notifications.
- Post notifications. The app sends notifications if you set an alarm for any To Do items at a time you choose on or before the item due date. Android 12 (Snow Cone) or lower does not require permission to send app notifications; on Android 13 (Tiramisu) and above, you need to enable notifications through the system settings.

  In the app notification settings, there will be separate settings for items whose due date is today or upcoming versus items that are overdue. There is also a category for "Updating Alarms"; this can be ignored as it is only required by Android for the background service which posts the other notifications.
- Vibrating the device. The app may use this for a haptic notification of an alarm, in addition to any sound selected in the settings. Only applies to Android Nougat and earlier.
- Write files to external storage. The app uses this when you export your ToDo data to a file for backup or transfer. In Android 6 (Marshmallow) or later, this is only needed if you select a backup file location outside of the app's private folder.

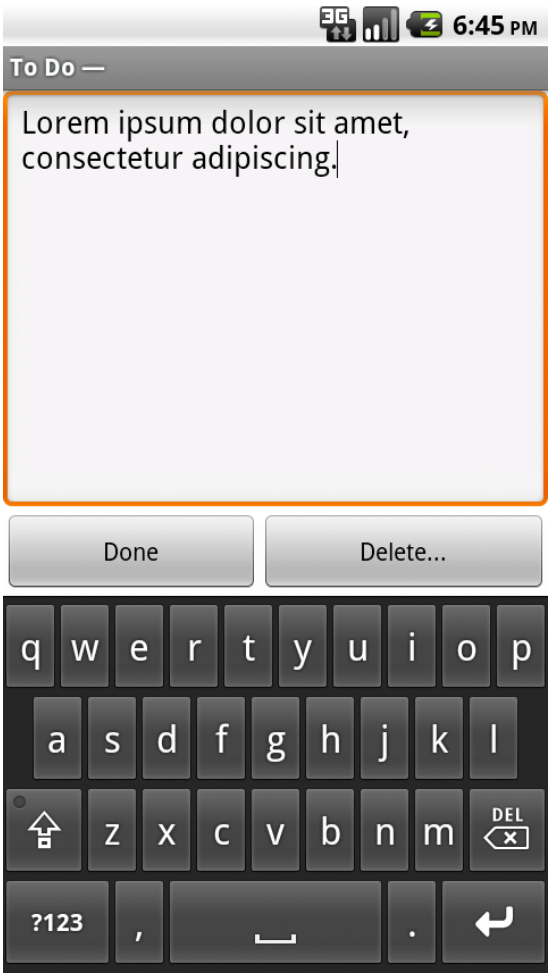
1.3 Adding To Do Items

To add an item to the list, press "New", then enter a short description of the item.



You can optionally add a priority, which is any positive number, to sort more important items before less important ones; the highest priority (first listed) is 1.

You can also add a longer note to the item by pressing the note icon at the bottom right of the form. This will bring up a separate page for entering your notes. Press "Done" when you have finished your notes, or "Delete..." if you no longer need the note.



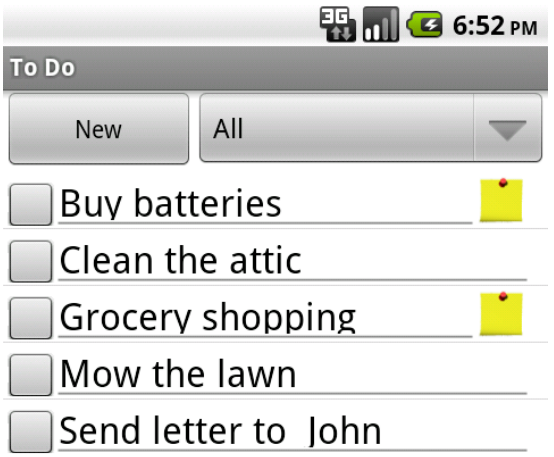
When finished entering your new item, press “OK”.

1.4 Changing To Do Items

To change an existing item in the list, hold your finger on the item for a second or so (“long press”) to bring back the item details form. After making your changes press “OK” to save them; or you can press “Cancel” to discard your changes, or “Delete...” to remove the item from your list.

1.5 Completing Items

On the To Do list, each item has a checkbox next to it.

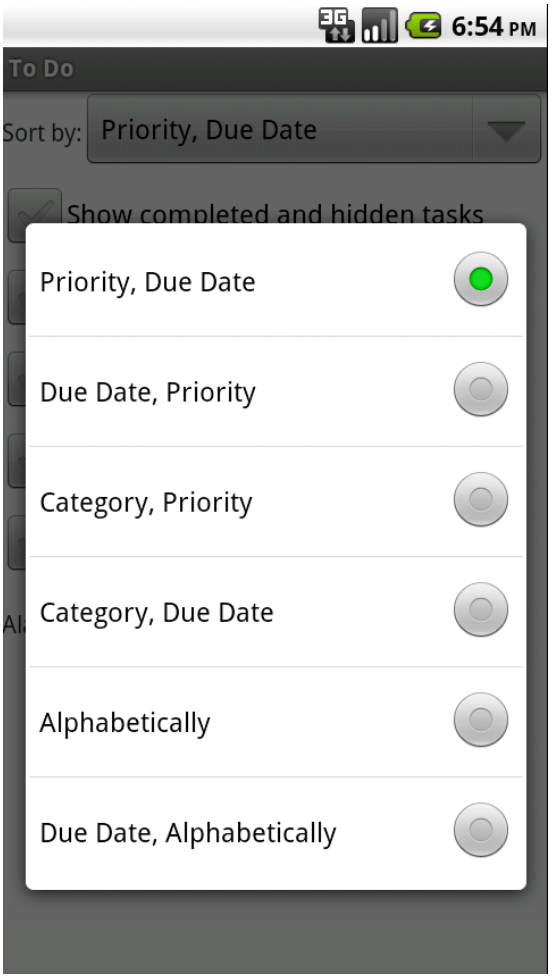


Tapping this will mark the item as done, but it will not be removed from the list, so you can always go back to the item and review or un-check it.

1.6 Changing How Items Are Listed

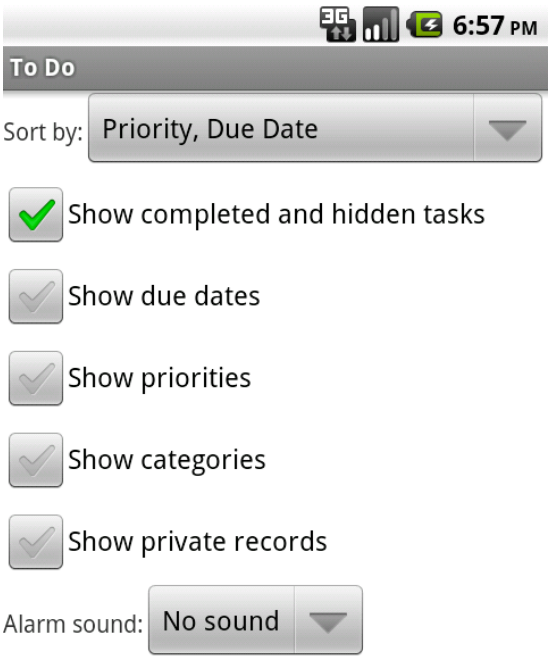
From the To Do list, push the Android menu button (the vertical ellipsis in the top corner on modern Android devices) and then press "Settings". This will let you set different options regarding what is shown in the list and in what order.

The first item in the settings tells the application in what order your items are displayed — by a combination of priority, category (see Chapter 2 [Categorizing Lists], page 7,) due date (see Chapter 3 [Due Dates and Alarms], page 10,) and alphabetically. All options will sort items alphabetically where the other fields are equal.



As mentioned in the previous section, items which have been checked off are not actually removed from the list, but by default they are hidden from view so you only see the items which haven't been done yet. If you turn on "Show completed and hidden tasks", then both completed and incompleted items will be shown.

There is also a dedicated menu option just for toggling whether to show completed and hidden tasks. (On Android 3 and newer devices, this option is shown as a check box on the main application title bar.)



The next three options will display additional fields next to each item. (Items which do not have a due date will show a horizontal dash when "Show due dates" is selected.)

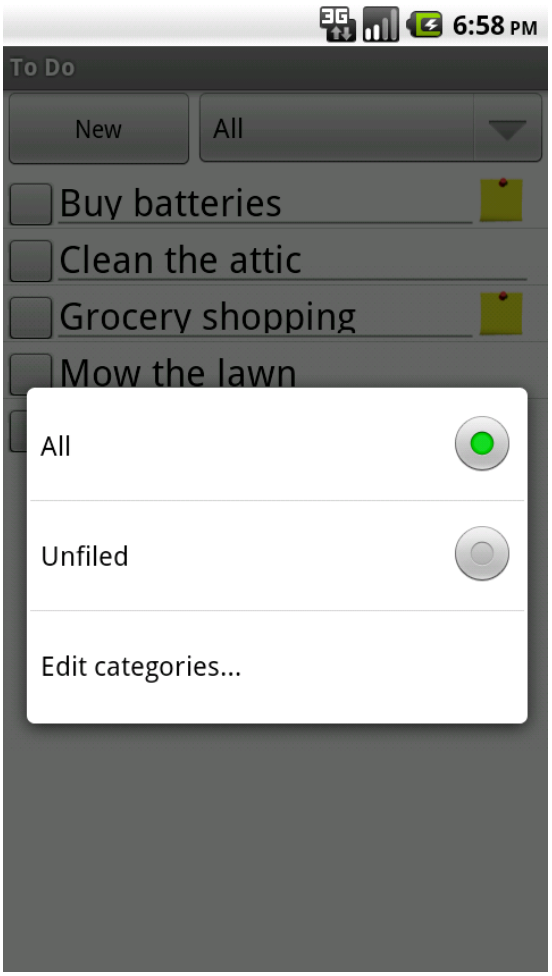
The rest of the settings will be covered in later applicable chapters.

Press the Android back button to close the settings screen.

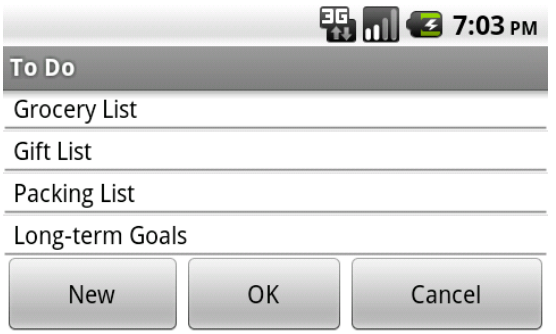
2 Categorizing Lists

Each item can be assigned to a different category, allowing you to create many unrelated lists — for example, you can have a list of things to do, a shopping list, a packing list, books to read, etc.

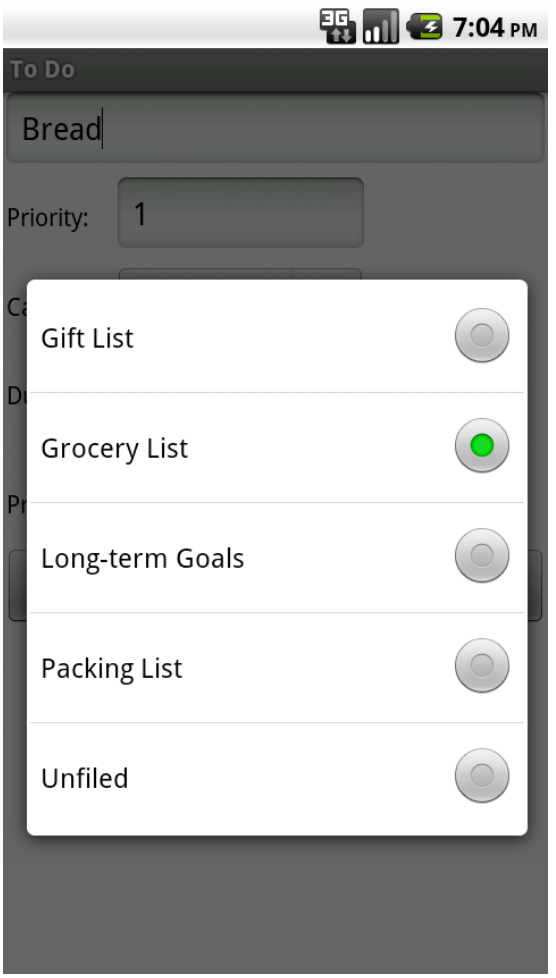
When the application is first installed it comes with just one category, "Unfiled," and all new items will be in this category. To add new categories, open the category drop-down list next to the "New" button, then select "Edit categories...".



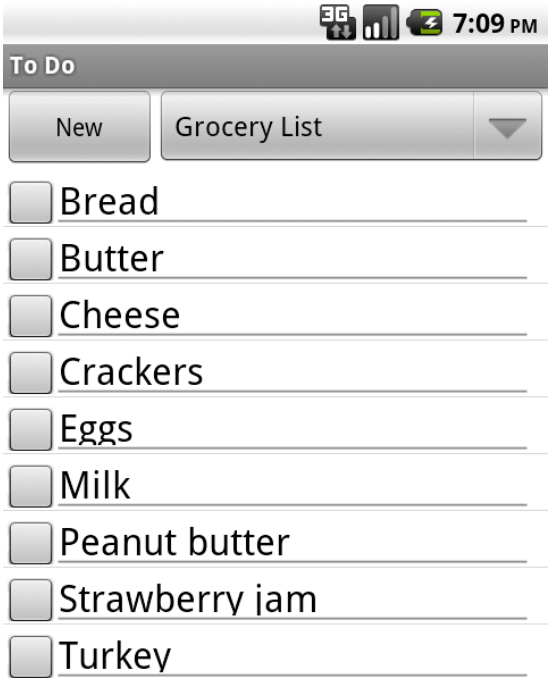
From the next screen, press "New" to make a new line in the category list, then enter the name of the category right on that page. Repeat for every category you want to create. You can also change previously entered categories on this page. When finished, press "OK" to save the new category list, or "Cancel" to discard your changes.



Now when you create a new item, you will have the option of changing the category it is assigned to.

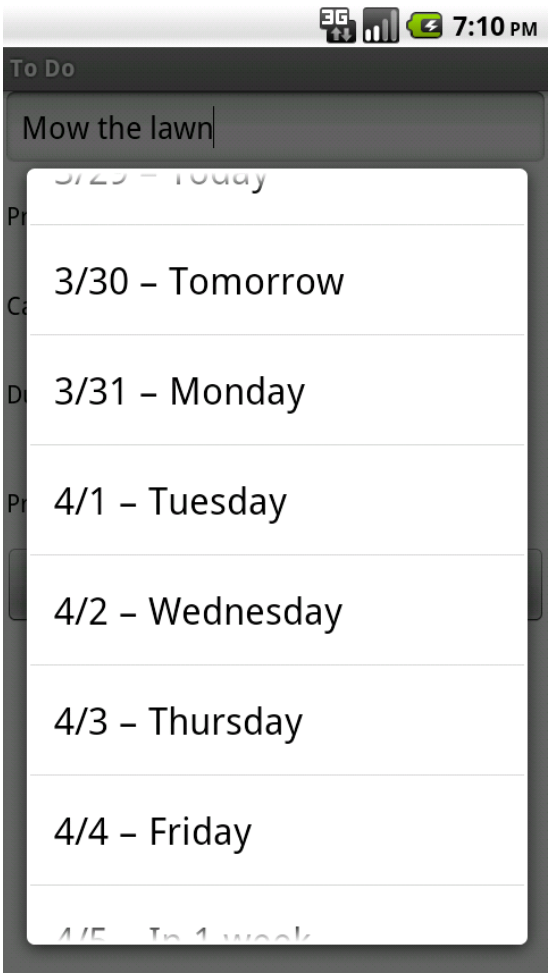


On the main list, open the category drop-down and select one of your custom categories to show only the items in that category. New items will default to the currently selected category. If you select "All," then all items from all categories will be shown.



3 Due Dates and Alarms

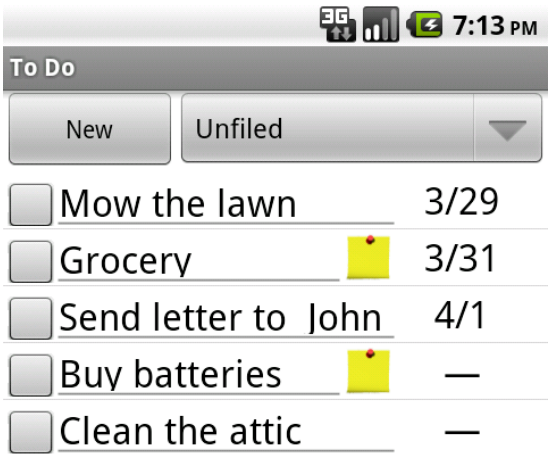
Each item can be given a due date. From the item detail form, press the button next to “Due date” to bring up a list of the next eight days (from today until next week.)



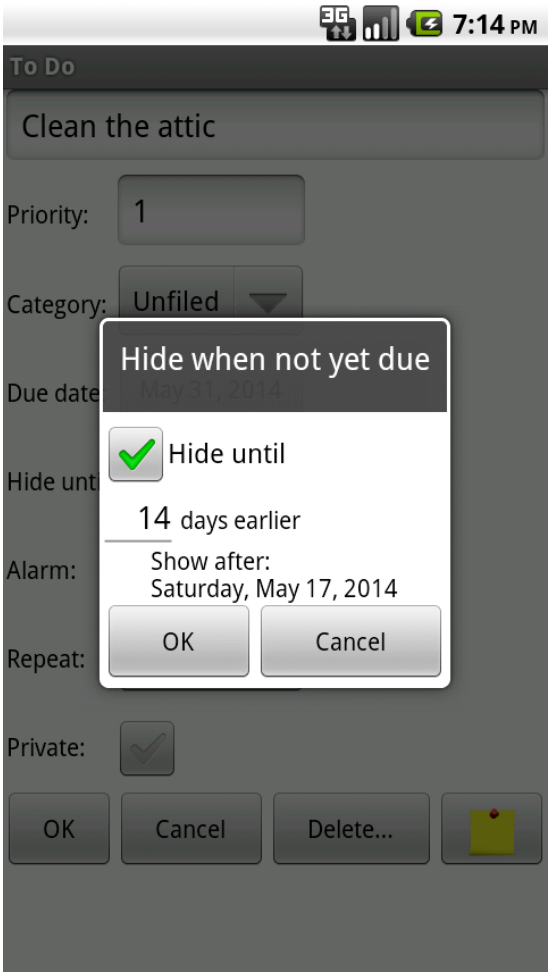
If you need to set a due date more than a week later, press “Choose Date...” which will bring up a calendar view. From there you can select the year, month, and day.

To remove the due date, press the button next to “Due date” and then select “None” from the list.

If you have enabled “Show due dates” in the application settings (see Section 1.6 [Changing How Items Are Listed], page 4) then you can also set the due date of an item by pressing the dash or previously set date to the right of the item.

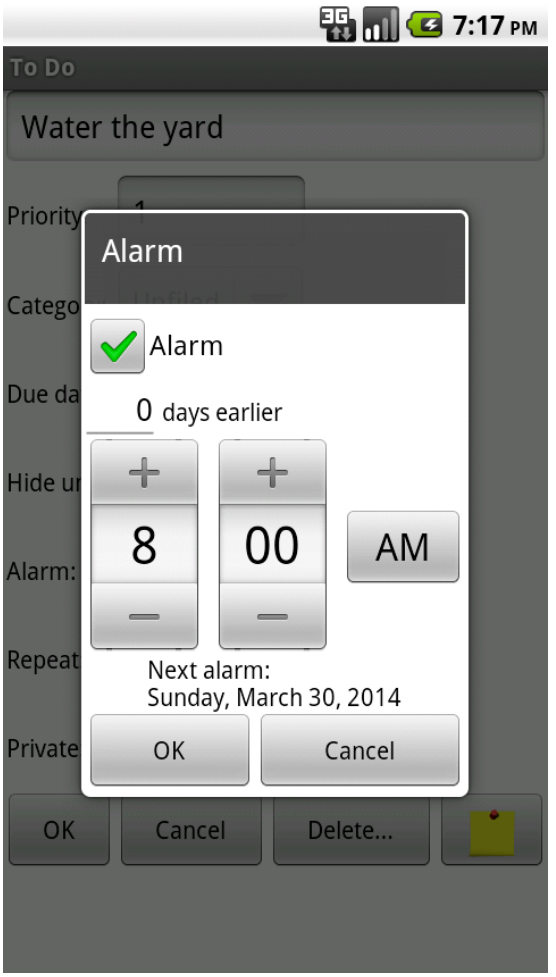


You can optionally hide an item that has a due date until that date approaches. After selecting the due date in the item details form, a new button will appear labeled "Hide until." Press this button to bring up another form where you can enable or disable hiding the record, and specify how many days before the due date to reveal it.



Hidden records will still be displayed if you have selected "Show completed and hidden tasks" in the application settings.

Items that have a due date may optionally have an alarm as well. If an item has a due date in the item details form, a button labeled "Alarm" will be available. Press this to bring up another form where you can enable or disable the alarm, set how many days before the due date and what time you want the alarm to go off. The alarm will sound on the selected day and every day after that at the same time until the item has been marked completed.



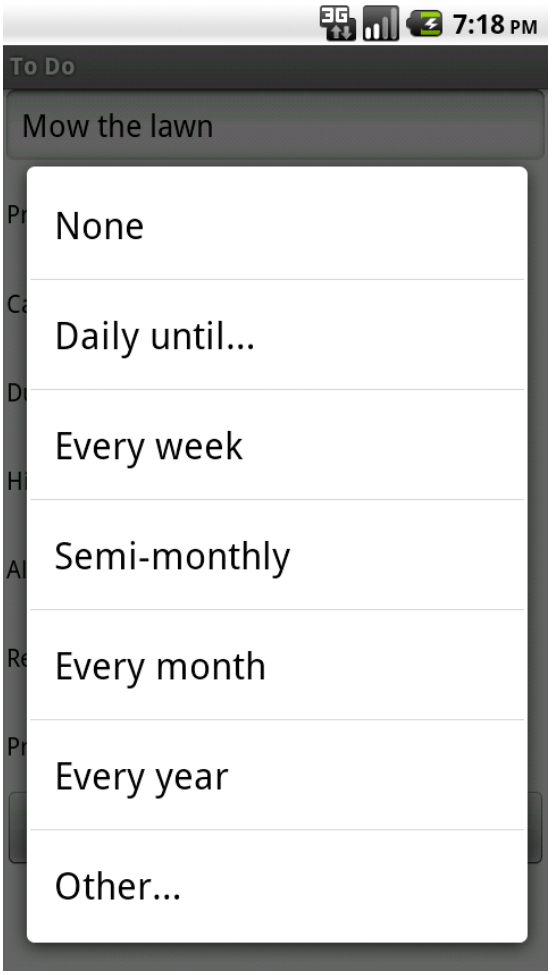
In the application settings, you can choose which sound to use for all of your To Do alarms.

4 Repeating Tasks

Items which have a due date can be made into repeating task. When a repeating task is marked as completed, its due date is automatically moved ahead to the next due date according to the schedule you set, and the item un-checked again.

4.1 Simple Repeats

Pressing the "Repeat" button will bring up a list of several common types of repeating schedules. These are:



- "Daily until..." will bring up a calendar where you can select the final day to repeat the task. Then every time you complete the task on or after its current due date, it will advance the due date to the next day

until it reaches the end date. After that, the task is left in a completed state.

- "Every week" will advance the due date by one week every time it is completed.
- "Semi-monthly" will advance the due date by 15 days if the original due date was on the 1st to the 14th of the month; to the last day of the month if the original due date was on the 15th; to 15 days earlier in the *next* month if the original due date was on the 16th to the 29th; or to the 15th of the next month if the original due date was on the 30th or 31st. The next time the task is completed, it advances to the date of the next month that corresponds to the original due date, or to the end of the month if the next month does not have enough days.

  For example: if the original due date is January 30, 2014, then the next due dates will be February 15, February 28, March 15, March 30, etc.
- "Every month" will advance the due date by one month every time it is completed, on the same day of the month or at the end of the month if the next month does not have enough days.
- "Every year" will advance the due date by one year every time it is completed, on the same day and month of the year.

For all of these options, you can customize the schedule further by pressing the repeat button again and selecting "Other...".

4.2 Advance Repeats

Some schedules aren't as predictable as calendar dates, but To Do gives you a great deal of additional flexibility in setting up repeating tasks. Selecting "Other..." from the Repeat list will give you access to a "Change Repeat" form with these options.

The top row of buttons lets you select the unit of time in which intervals between tasks are measured: days, weeks, months, or years.

For each of the four standard units of time, two more buttons let you select whether the task repeats at a fixed schedule (for example, paying bills) or a certain amount of time after the task was last completed (for example, changing a filter.)

Next, you can enter how many units of time elapse between doing the task, for example every 2 days or every 7 years.

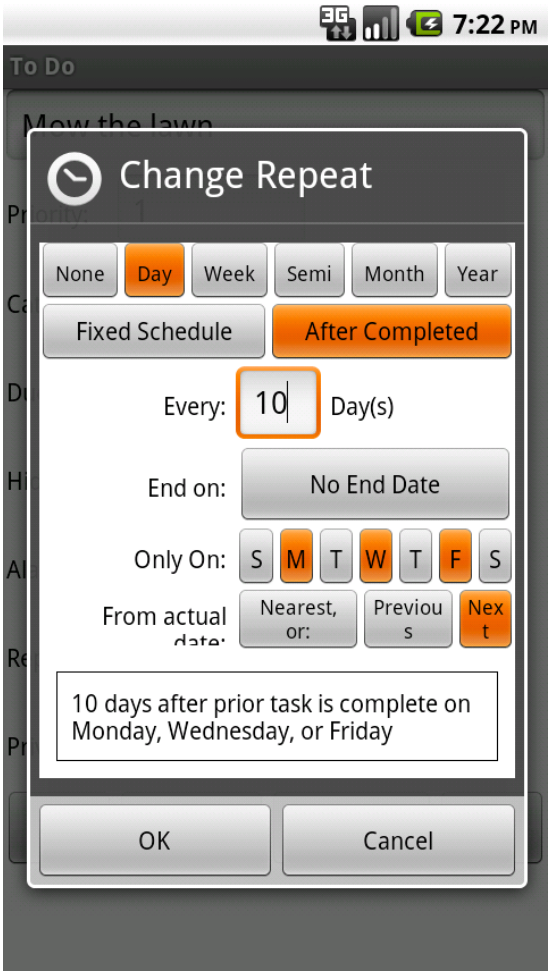
You can optionally pick a date after which the task no longer repeats. If you leave this as "No End Date," the task will repeat indefinitely.

Depending on the unit of time and scheduling option chosen, you may have additional options for further fine-tuning when the task is repeated. More detail on these is given below.

At the bottom of the form, a text box summarizes how often the task will repeat given the option you've currently selected.

4.2.1 Day Options

When advancing a task by days, whether on a fixed schedule or after the task was last completed, you can choose to make it due only on certain days of the week — for example, weekdays, weekends, never on a Sunday, etc.



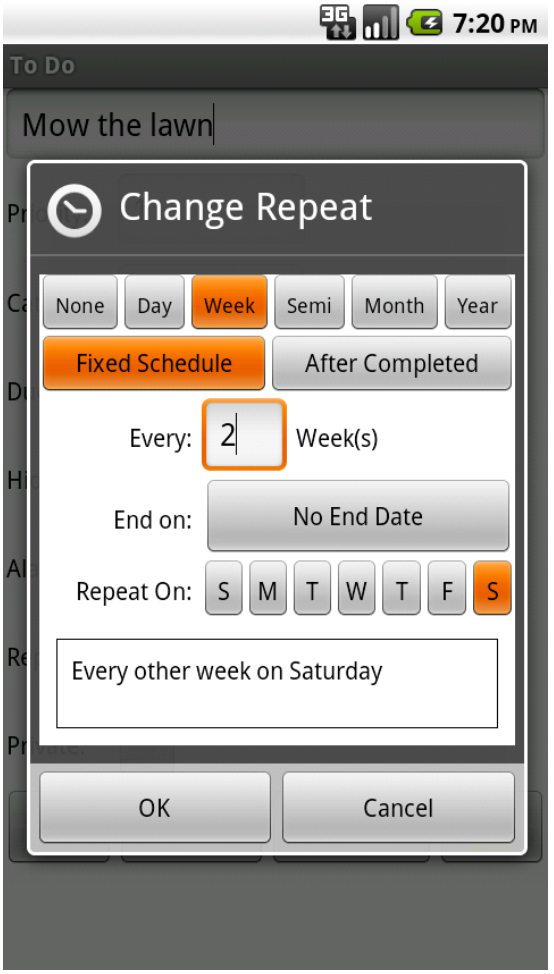
If the next advancement of the due date would put it on a day of the week that isn't allowed, To Do will normally move the due date forward to the next allowed day. You can change this behavior by selecting "Previous" to have it move the due date *backward* to the previous allowed day, provided that day still comes after the task's previous due date. *(The application will never move a due date backward in time.)*

Selecting the "Nearest, or:" button will tell the application to choose the allowed day nearest the target. For example if the allowed days were Monday and Friday and the due date would land on a Tuesday, it would be pushed back to Monday; while if the due date would land on a Thursday, it

would be pushed forward to Friday. If the target date is the same distance from the allowed days, e.g. Wednesday, then the due date would be chosen according to the "Previous" or "Next" button.

4.2.2 Week Options

For weekly tasks on a fixed schedule, you can select multiple days of the week on which the task occurs — for example, every Tuesday and Friday.



This gets tricky if your interval is every 2 or more weeks. In that case, the due date will advance from one chosen day of the week to the next within the current week, until it reaches the last chosen day. After that, it will skip the next week(s) and land on the first chosen day of the nth week from where it started.

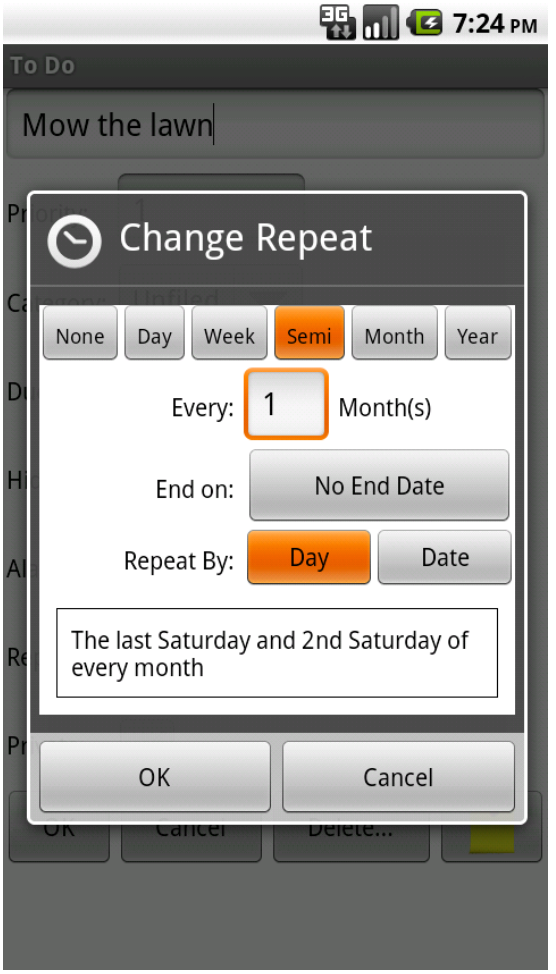
For tasks that repeat a number of weeks after its last completion, you can choose to make it due only on certain days of the week just the same as

with daily tasks. (In this respect, every n weeks after completed is identical to every $7 \times n$ days after completed.)

4.2.3 Semi Options

Semi-monthly events have two forms: by day of the week or day of the month.

The first case starts from the day of the week of the initial due date, and advances every two or three weeks depending on whether there are four or five of those days in the month. Normally, the second week is chosen either two weeks after or two weeks before the initial due date, depending on whether the first due date is after the second week of the month.



In the event that the initial due date is on the 5th occurrence of a day of the week, the alternate due date will be on the 2nd week. For example, if the first due date is Sunday, March 16, then semi-monthly repeats would

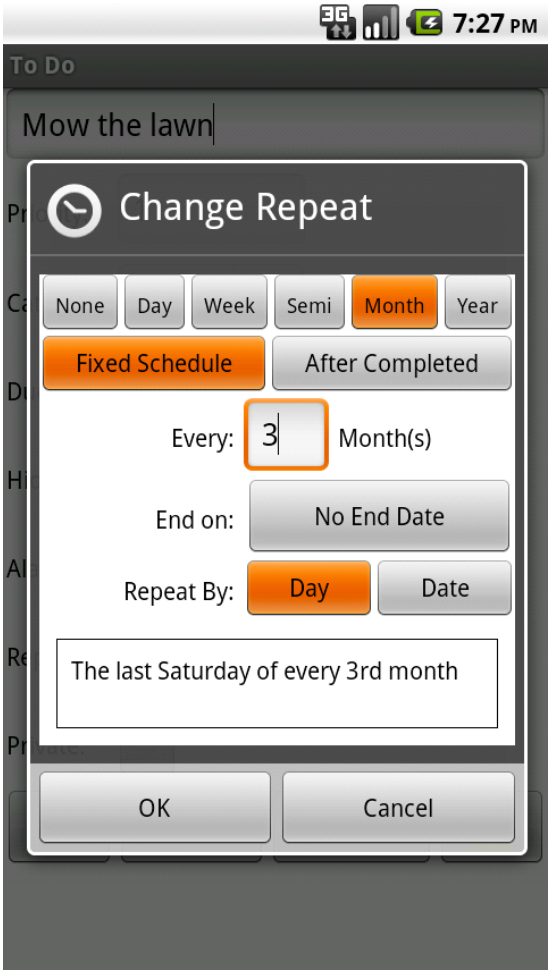
be on the 1st and 3rd Sunday. On the other hand if the first due date is Sunday, March 30, then semi-monthly repeats would be on the 2nd and *last* Sunday — "last" being the 4th or 5th, depending on how many Sundays are in the month.

The second case of semi-monthly events, by date, sets the alternate due date either 15 days after or 15 days before the initial due date, depending on whether the first due date is after the 15th day of the month. With this form you also have the option to select which days of the week the due date can fall on, just the same as with daily tasks.

4.2.4 Month Options

Monthly tasks can be repeated on a fixed schedule by day of the week, for example the 4th Monday. In case the initial due date is on the 5th occurence

of a day of the week, it will be repeated on the *last* such day of the following months.



Monthly tasks can be also repeated on a fixed schedule by day of the month based on the initial due date, or a number of months after the task was last completed. With these options you can choose to have it occur only on certain days of the week, in which case the actual due date will be either the next, previous, or nearest allowed day to the target day of the month.

4.2.5 Year Options

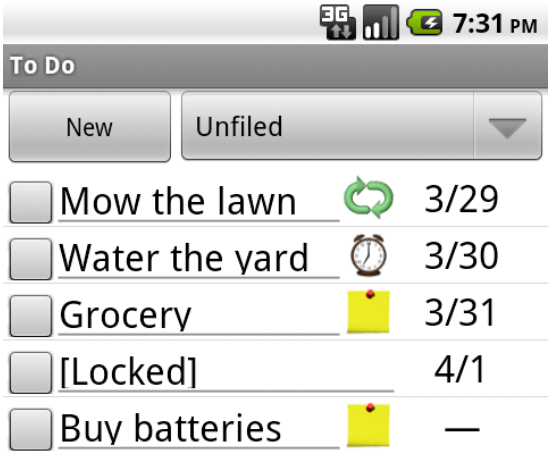
Yearly tasks can be repeated on a fixed schedule by day of the week, for example the 3rd Monday of February. This is an ideal option for certain holidays that always take place on a certain day of the week rather than a day of the month.

Yearly tasks can be also repeated on a fixed schedule by month and date based on the initial due date, or a number of years after the task was last completed. With these options you can choose to have it occur only on certain days of the week, in which case the actual due date will be either the next, previous, or nearest allowed day to the target day.

5 Private Records

Items can be marked as “Private”, in which case they are normally hidden in your To Do list unless you turn on “Show private records” in the application settings.

You can add an extra layer of security to your private records by setting a password from the application’s main menu. After setting a password, all of your private records will be encrypted and will show up as “[Locked]” in your To Do list and you will not be able to edit them until you enter your password in the application settings. When you exit the application, it forgets your password so that the private records become locked again the next time anybody opens your To Do list.



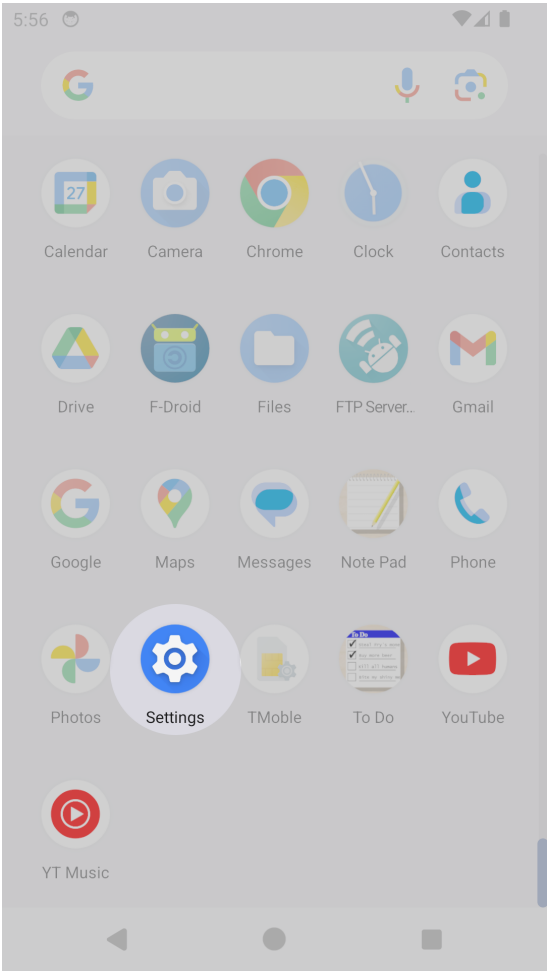
Important! If you have not entered your password in the application settings and you mark a record as Private, it will *not* **be encrypted.** If you want to encrypt a new record but have not entered your password yet, simply save it, enter your password in the application settings, open up your new record and save it again.

You can remove your password and un-encrypt your private records by choosing “Set Password” from the main menu, enter your old password, but leave the new password blank.

5.1 Lost Password

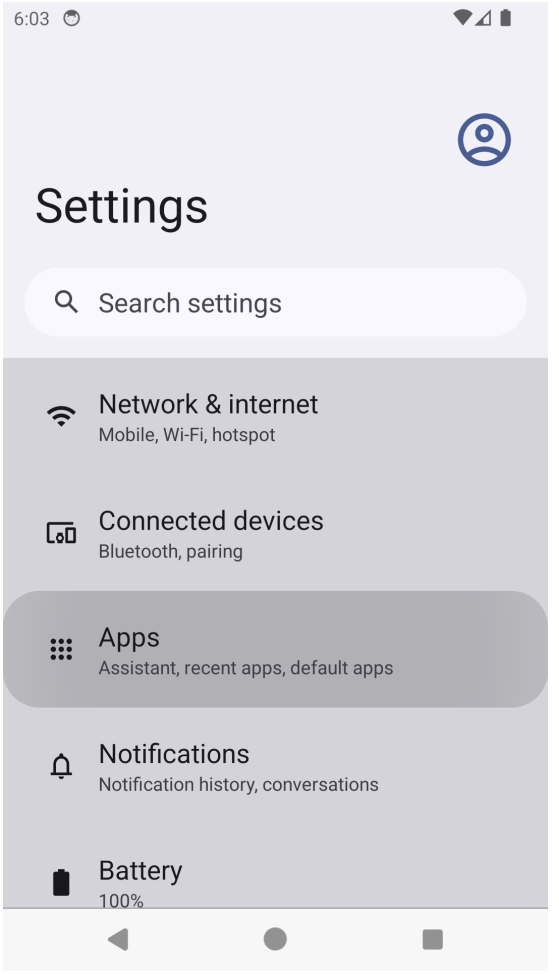
If you have set a password and later forget what it was, you will not be able to access your encrypted private records. The only way to recover from this situation and reset your password is to erase the application data.

1. If you have any private records which were *not* encrypted (because they were created without a password,) change them so they are not private.
2. Export a backup copy of your To Do list (see Section 6.1 [Exporting To Do data], page 29), but *do not* include private records.
3. Exit the To Do application, and open up the Android Settings.

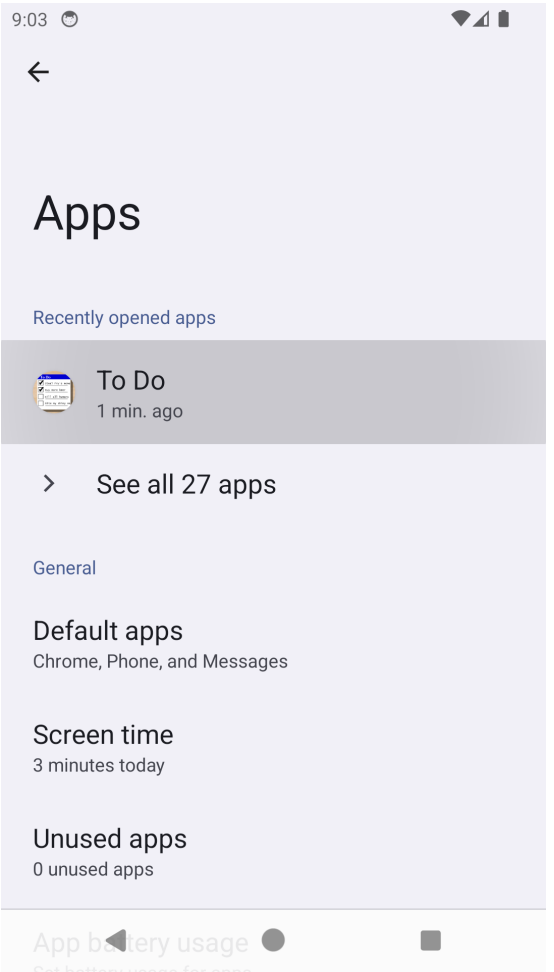


(The following sequence may vary depending on your version of Android.)

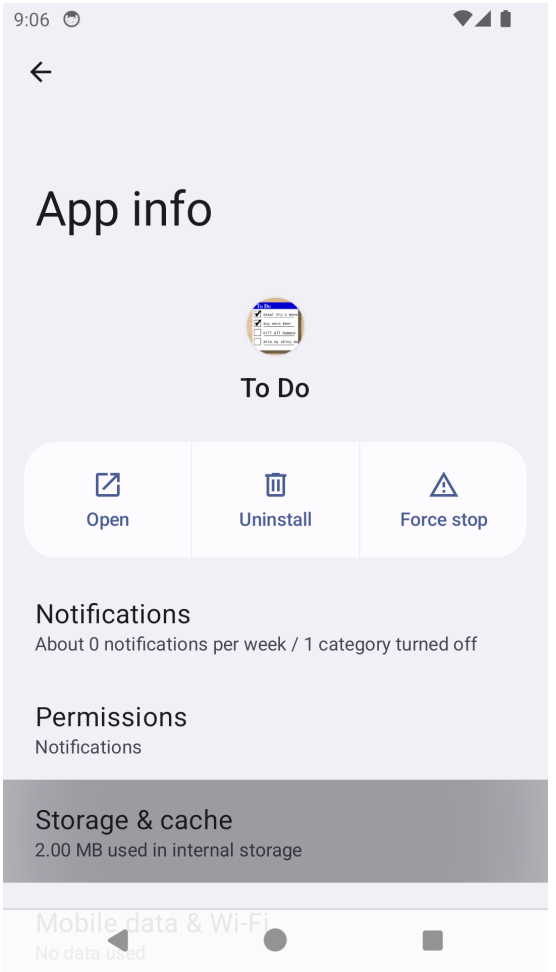
4. Choose “Apps”



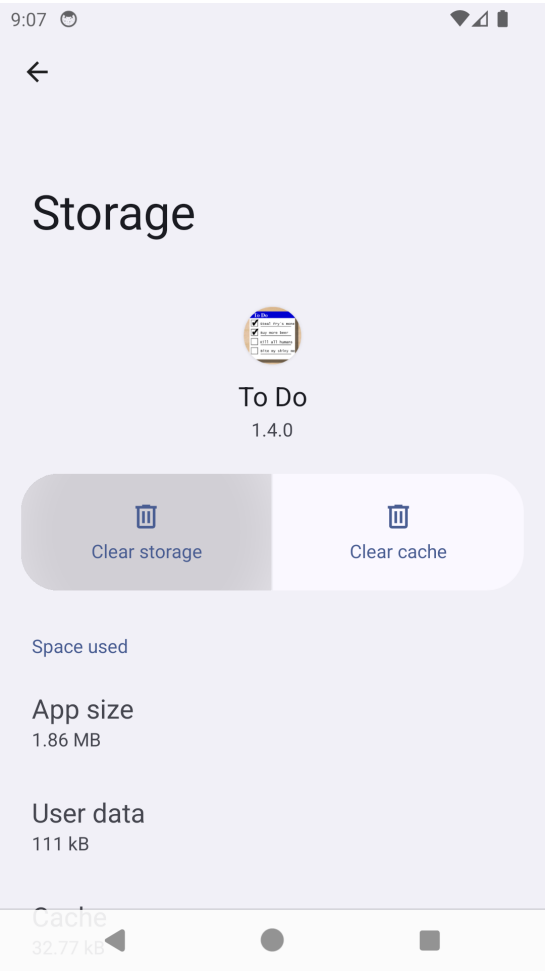
5. Choose “To Do”.



6. Select “Storage & Cache”



7. Press the “Clear storage” button, and confirm that you really want to do this.

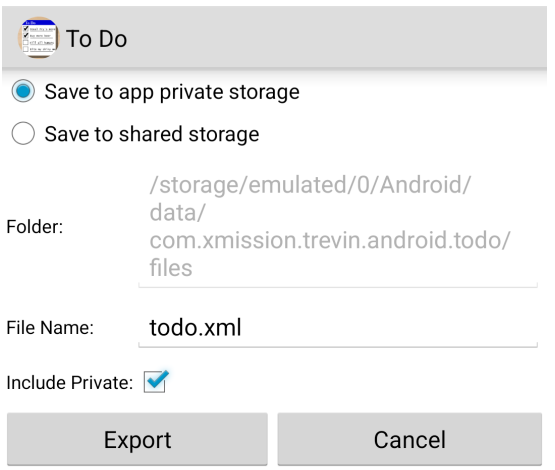


8. Exit all the way out of the Android Settings, and go back to the To Do application. It should now be empty.
9. Import the file you had previously backed up. (See Section 6.2 [Importing To Do data], page 32)
10. If you had any records which were private but not encrypted, change them back to private.
11. Set a new password. Make sure you remember this one!

6 Exporting and Importing

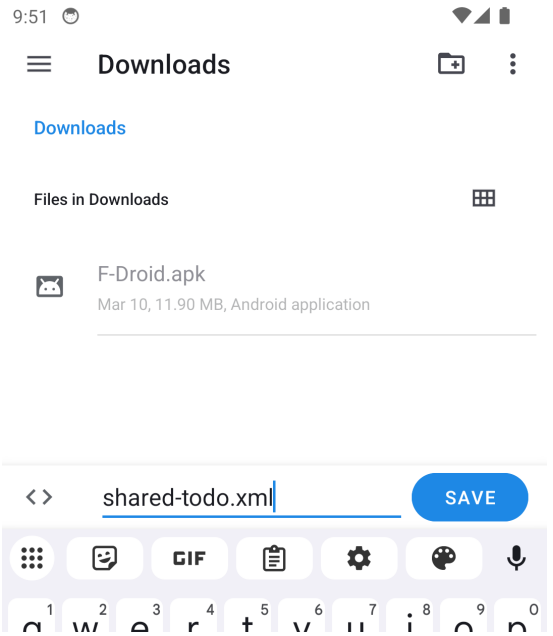
6.1 Exporting To Do data

In order to protect against the loss of data on your Android device, you should periodically make a backup copy. First, if you have set a password for your private records make sure you have entered the password in the "Settings" to unlock them. Then in the main menu select "Export Data" to save all of your To Do items to a file on your device.



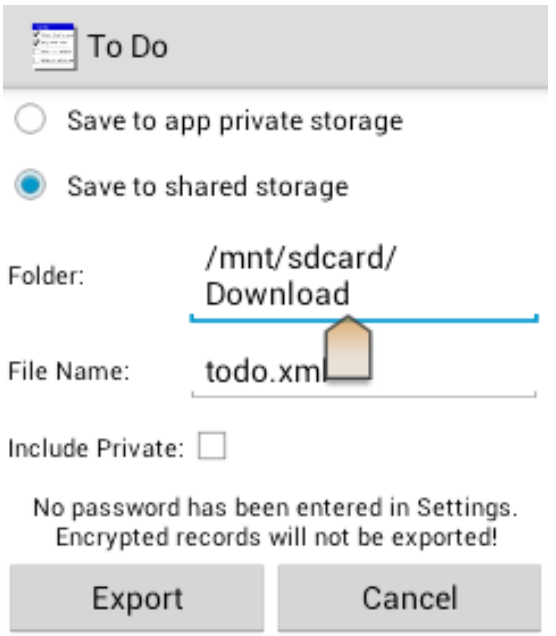
You can choose where to save the file and what to name it, but by default it is saved to the app's private storage area on your device. The export dialog shows the location of this storage, which can vary depending on your version of Android — for example: `/sdcard/Android/Data/com.xmission.trevin.android.todo/files/`.

If you select "Saved to shared storage", you have the option to save it anywhere supported by Android's Storage Access Framework if running Android 7 (Nougat) or newer. You will need to enter the name of the export file you wish to save, ending in `.xml`.



After pressing "Save" you will return to the app's Export screen.

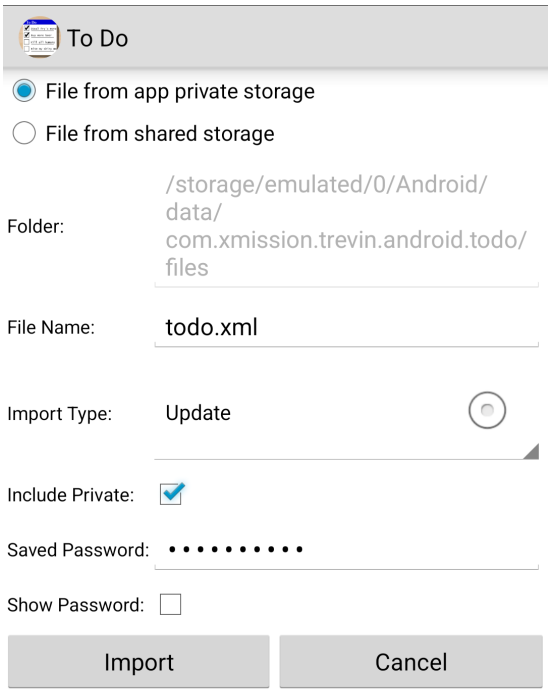
If you are using Android 6 (Marshmallow) or older, selecting "Save to shared storage" will change the folder to the device's default `Downloads` directory. You can change the location by typing it in, but be sure the location is accessible.



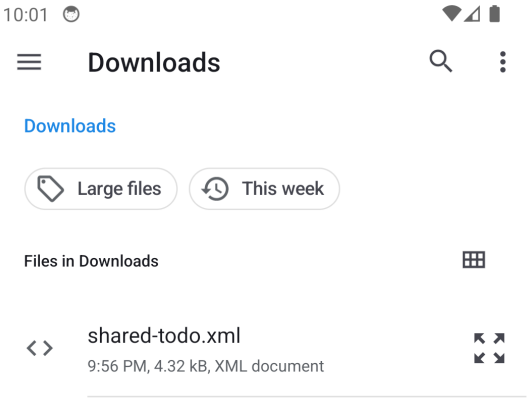
If you wish to include private records in the exported file, be sure the "Include Private" box is checked. You can also export just the non-private items by leaving this box unchecked. When ready, press "Export". The app will show a progress bar as it writes the data out (if it takes long enough) then return to the To Do list.

6.2 Importing To Do data

When you need to restore To Do items from your backup file, select "Import Data" from the main menu and select or enter the location of the file to import. If you are importing the data you previously saved to the app's private storage area, you will need to enter the same name that you gave the exported file.

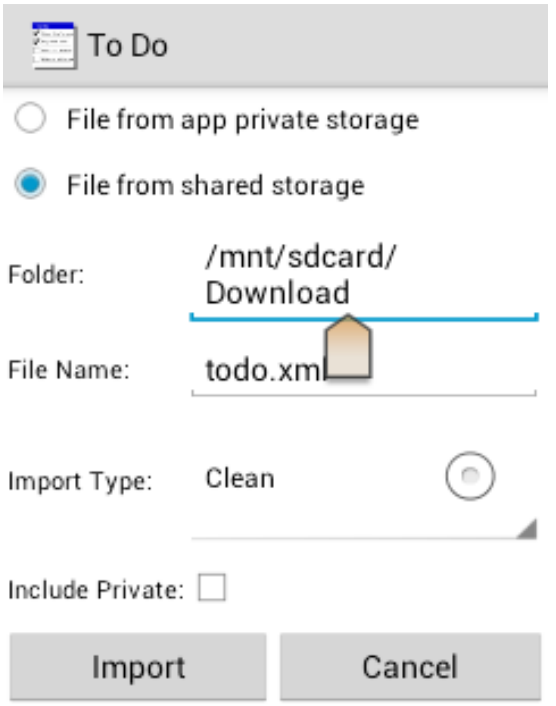


If you are importing data from a file in shared storage, select "File from shared storage". On Android 7 (Nougat) or newer, you can browse through the available storage folders to find the `.xml` file with your saved To Do lists.



When you select the document you will return to the app's Import screen.

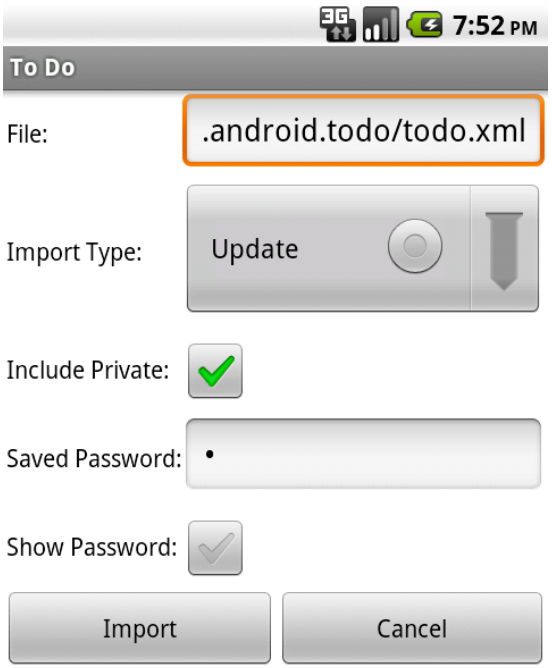
If you are using Android 6 (Marshmallow) or older, selecting "File from shared storage" will change the folder to the device's default `Downloads` directory. You can change the location by typing it in, but you will need to know in advance where the file is located; the app doesn't provide a file browser.



Next, select the type of import you wish to perform. The choices are:

- "Clean": Use this when importing a backup file to a new device, or if you need to undo all changes which have been made since the file was exported. This will erase all of your To Do items and categories before importing records fom the file.
- "Overwrite": This option will restore all records from your backup file — even if the title has changed — but leave any new records in the application alone.
- "Update": This option will only import records from the backup file whose modification time is newer than the corresponding record in the application database. Use this if you want to keep your To Do list on multiple devices, to synchronize changes between the two. Note that if you update a record on both devices and then try to synchronize them with an update, the earlier changes will be lost in favor of the later ones.

- "Merge": This option will import records from the backup file which have the same category and title as the corresponding record in the application database, *if* it has a newer modification time, similar to an Update. However if the record in the backup file has a different category or title, or it does not exist in the application database, it will be added.
- "Add": This option will add all records from the backup file as new items in your To Do list, regardless of duplicates. This should be used if you created different lists on separate devices and want to copy the list from one to the other.
- "Test": This option simply parses the backup file and reads all of its records without importing any. Use this if you need to verify the integrity of your backup file, particularly if you have manually edited it or had it created by a different application.



If you have set a password for your private records, you do not need to enter it to back up your private data; the application saves the encrypted records. You *will* need that password when you need to import those private records back in to the application. This may be different than your current password. **Important! Do not forget the password you had when you made the backup file.** Without thet password, it will be practically impossible to recover your private records; however you may still restore all of your non-private records by un-checking "Include Private" on the Import form.

If you have not entered your password in the application settings when you attempt to import a backup file, the import form will warn you that any

private records imported will not be encrypted. You may either cancel the operation to go enter your password and then try again, or go ahead and import the data and then re-encrypt the private records later. To encrypt them afterward, either open up and save each private record individually, or choose "Set Password" from the main menu and change the password. *(You can change it to the same password if you wish.)*

7 Known Bugs

The following bugs are known to exist in version 1.4.2 (build date 2025.06.02) of To Do. If you encounter any other bugs, please go to my project page on GitHub to report them:

`https://github.com/Typraeurion/Android-ToDo/issues`

- It is not possible to enter a new item or change the text of an existing item directly in the To Do list; this can only be done in the item details form. I tried making the text in the list editable, but had difficulty getting it to work.
- If you start to create a new item and then press "Cancel" instead of "OK", a blank item will be left in the list.
- If all categories are shown in the list page and you click "New", the application may or may not crash; normally it should create the item with a category of "Unfiled." I haven't been able to reproduce this bug consistently.
- It is not possible to delete the last remaining category in the category list.
- When choosing an end date for a repeating task, the "End on" button text is not changed to show the chosen date. (The end date will be saved when you click "OK".)
- If an end date has been chosen for a repeating task, there is no way to change it back to "no end date."
- The number of records that can be imported from a previously exported file is limited by the amount of memory available to the application. If you find that the application dies when importing a file, try splitting the file into two or more smaller files, copying the '`<Metadata>`' and '`<Categories>`' sections into each file, and import them separately.
- When importing a backup file, the progress bar may not update properly.

The following bugs were in the 1.2.1 release (built 2025.02.24) but have been fixed as of 1.2.2 (built 2025.03.06).

- Notifications may have been broken for Ice Cream Sandwich. *This bug was introduced in 2025.02.20 so does not impact earlier versions.*
- Updating the app settings or the export/import file name may have been broken for Froyo. *This bug was introduced in 2025.02.20 so does not impact earlier versions.*

The following bugs were in the 2025.02.20 release but have been fixed as of 2025.02.24.

- Exporting any item with a due date that is hidden until some number of days in advance would result in an invalid XML file which could not be imported back. The workaround is to manually edit the XML file and

look for "`<hide days-earlier="`" with a line break before the number; remove the line break (e.g. "`<hide days-earlier="3"/>`"). *This bug was introduced in 2025.02.20 so does not impact earlier versions.*

- It is not possible to restore the preferences from a previously exported file.

The following bugs were in the 2017.07.25 release but have been fixed as of 2025.02.20.

- If any item in the list is missing its description, the application will crash when you try to export the data for a backup. Attempting to open the application again will fail. If this happens, you will need to close the application and re-start it. To fix this, select "All" categories, show completed items, then search through the list for the offending item(s) with a blank description and either delete them or fill in the description. Then try exporting your data again.

The following bugs were in the 2014.06.02 release but have been fixed as of 2017.07.25.

- Opening the details of any To Do item in landscape orientation would cause the application to crash. That was because the application tries to show or hide the "Completed" date depending on whether an item was ever checked, but in landscape mode this field is on the same row as the "Due" date. In the 2017.07.25 release, the "Completed" field is always shown even if it has no value.
- After an alarm has already gone off, the alarm would go off again every time a change is made to any To Do item.

The following bugs were in the 2014.04.06 release but have been fixed as of 2014.06.02.

- On Honeycomb (Android 3) and newer devices, after viewing the details of a To Do item or going to the application settings and then returning to the To Do list, the selected category on the main screen would switch to "All".
- How to access the menu may not be apparent on Honeycomb or newer devices which lack a physical menu button. The application interface has been updated so that the menu is now accessible from the title bar.

In addition to the above bug fixes, a new menu option was added for conveniently toggling whether to show or hide completed items without having to enter the application settings screen.

The following bugs were in the 2014.03.29 release but have been fixed as of 2014.04.06.

- When exporting a backup file the application included private records regardless of whether "Include Private" was checked or not.
- Importing a backup file in "Update" mode was checking an item's creation time rather than its modification time, so a modified item would never be updated from the file.

- When an item as checked complete or the due date changed directly from the list (as opposed to the item details,) its modification time is not changed. As a result, the change is not carried over if you export the list and then import it to another device in "Update" mode.

The following bugs were in the 2014.03.23 release but have been fixed as of 2014.03.29.

- If you have not set a password and you try to enter one in the Settings, the application will crash. In the 2014.03.29 release, the password field no longer appears when a password has not been set.